REMARKS/ARGUMENTS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-4 and 6-20 are pending in the application, with Claims 1, 6, 10, 11 and 14-18 amended and Claim 5 cancelled by the present amendment.

In the outstanding Office Action, Claims 8-17 were objected to under 37 CFR 1.75(c); Claims 1, 7, and 10 were objected to; Claims 1-20 were rejected under 35 U.S.C. § 112, second paragraph; and Claims 1-3 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentaable over Li et al. (U.S. Patent No. 6, 687,227, hereinafter Li), in view of Comer (Internetworking with TCP/IP, Principles, Protocols, and Architectures, 4th Edition, 2000). Claims 8-17 were not examined on the merits in view of the objection under 37 C.F.R. § 1.75(c). The Official Action did not address whether or not Claims 4-7 and 19-20 contained allowable subject matter.

Applicants acknowledge with appreciation the personal interview between the Examiner, the Examiner's supervisor, and Applicants' representative on June 16, 2004. During the interview, the Examiners acknowledged the outstanding Official Action was defective for failing to provide an indication of allowability, or basis of rejection, in view of the prior art for Claims 4-7 and 19-20. During the interview, the Examiners indicated Claims 4 and 18 contained allowable subject matter, the Claim 5 was indefinite, and Claims 6 and 20 were not allowable in view of the cited references, and that no determination about Claim 7 in view of the prior art was available. The Examiners agreed to review at least Claim 7 and to pass judgment on these claims at least in a non-final Official Action that would follow a formal response, if not sooner in a supplemental Official Action.

Also, during the interview, the claimed inventions were contrasted with the prior art, with particular emphasis placed on the independent claims' recitation of controlling a

window size parameter (Wa) contained in an acknowledgement segment on the basis of the difference in sequence numbers. The Examiners agreed to consider the arguments provided while considering other the above-identified unexamined claims.

Also, during the interview, the Examiners and Applicants representative discovered that Applicants' substitute specification filed on May 14, 2001 had not been formally accepted by the Examiner as having no new matter, but had been the basis of the outstanding Official Action. Because the substitute specification has not been formally accepted, and because the substitute specification contains numerous scanning errors, Applicants request the substitute specification of May 14, 2001 not be accepted by the Examiner and that Applicants' originally filed specification and claims be reviewed henceforth. Also, to clarify the record, Applicants have attached a new inventor's declaration.

Claims 6, 10-11, and 14-18 are amended to comply with 37 C.F.R. § 1.75(c). Claims 1 and 18 are amended to comply with 35 U.S.C. § 112, second paragraph. No new matter is added.

Regarding the objection to Claims 1, 7, and 10, Applicants note that their originally filed claims do not include the informalities noted in the Official Action. The informalities noted in the Official Action are, however, present in Applicants' unentered substitute specification, discussed above. Because the substitute specification has not been formally accepted by the Examiner, and in view of Applicants' request not to accept said substitute specification, Applicants submit the objection to Claims 1, 7, and 10 is moot.

Briefly recapitulating, Claim 1 is directed to a method of controlling a flow of at least one TCP connection between a sender (10) and a receiver (20), to include controlling, at a level of a given multiplexing node across which TCP segments pertaining to a connection pass, a parameter for the window size (Wa) contained in the acknowledgement segments returned by the receiver. The method comprises the steps of:

a) receiving (100) an acknowledgement from the receiver on the up link (receiver to sender) of the connection at the level of the given multiplexing node;

b) controlling (200-600) a window size parameter (Wa) contained in the acknowledgement segment on the basis of the difference (Diff) between,

1) a first context value ($NoSegData_i$) associated with the TCP connection, defined as being the sequence number of the last segment that was transmitted from the given multiplexing node on the down link (sender to receiver) of the connection, to which the length of the segment is added, and,

2) the sequence number indicated in the acknowledgement segment.

The method also includes the step of c) transmitting (700) the acknowledgement segment to the sender on the up link of the connection from the multiplexing node with the window size parameter (Wa) thus controlled. Claim 18 is directed to an apparatus corresponding to the method recited in Claim 1. The claimed inventions allow for the prevention of congestion at the level of the flow control point of a flow controlled by a network.[1]

Li discloses a method of flow control that includes replacing a client advertised window size (CWS) 48 with a revised window size (AWS) 50.[2] The adjustment in window size is based on the CWS 48 and the state of the dynamic rate control (DRC) queue 42. However, as noted in the Official Action, Li does not disclose or suggest adjusting a window size based on a) the sequence number of the last segment that was transmitted from a given multiplexing node on the down link to which the length of the segment is added and b) the sequence number indicated in the acknowledgement segment.

Comer discloses a TCP/IP header with sequence number field and a window field.[3] Comer also discloses a method of controlling congestion that includes maintaining a congestion window limit, where the allowed_window = min (receiver_advertisement,

[1] Specification, paragraph [0026].
[2] Li, column 5, line 52 – column 6, line 24.
[3] Comer, Figure 13.7.

congestion_window).[4] However, contrary to the Official Action, the allowed_window of Comer does not correspond to Applicants' claimed window size (Wa) because Comer's min (receiver_advertisement, congestion_window) does not correspond to Applicants' claimed difference between a) the sequence number of the last segment that was transmitted from the given multiplexing node on the down link, and b) the sequence number indicated in the acknowledgement segment. That is, Comer discloses a different algorithm than is recited in Applicants' claimed invention.

As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claims 1 and 18, Applicants submit the inventions defined by Claims 1 and 18, and all claims depending therefrom, are not rendered obvious by the asserted prior art for at least the reasons stated above.[5]

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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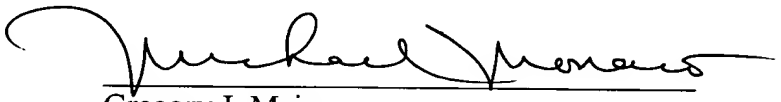

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[4] Comer, Section 13.20.
[5] MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."